

## TEST REPORT

**Report Reference No.**..... : **MTEB24090374-H**

**FCC ID**..... : **2AVJ8-RF6709**

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Date of issue..... : **September 30,2024**

**Representative Laboratory Name.** : **Shenzhen Most Technology Service Co., Ltd.**

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**Applicant's name**..... : **DewertOkin Technology Group Co., Ltd.**

Address..... : No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing City, Zhejiang Province, China.

**Test specification/ Standard**..... : **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator..... : Shenzhen Most Technology Service Co., Ltd.

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**Test item description**..... : Hand controller

Trade Mark..... : N/A

Manufacturer..... : DewertOkin Technology Group Co., Ltd.

Model/Type reference..... : RF6709

Listed Models ..... : RF6707

Modulation Type..... : GFSK

Operation Frequency..... : From 2403MHz ~ 2480MHz

Hardware Version..... : V1.0

Software Version..... : V1.0

Rating..... : DC 3V (AA \* 2)

Result..... : **PASS**

## TEST REPORT

Equipment under Test : Hand controller

Model /Type : RF6709

Listed Models : RF6707

Remark : The product buttons are different, but everything else is the same.

Applicant : **DewertOkin Technology Group Co., Ltd.**

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Manufacturer : **DewertOkin Technology Group Co., Ltd.**

Address : No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing City, Zhejiang Province, China.

|                     |             |
|---------------------|-------------|
| <b>Test Result:</b> | <b>PASS</b> |
|---------------------|-------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1. Revision History

| Revision | Issue Date | Revisions     | Revised By |
|----------|------------|---------------|------------|
| 00       | 2024.09.30 | Initial Issue | Alisa Luo  |
|          |            |               |            |
|          |            |               |            |

## 2.1 RF Exposure Compliance Requirement

### 2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

#### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

### 2.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot$$

$$\left[ \sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

## 2.1.3 EUT RF Exposure

$$\text{EIRP} = \text{PT} * \text{GT} = (\text{E} \times \text{D})^2 / 30$$

where:

PT = transmitter output power in watts,

GT = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m,  $10^{(\text{dB}\mu\text{V}/\text{m})/20} / 10^6$ ,

D = measurement distance in meters (m)---3m,

So  $\text{PT} = (\text{E} \times \text{D})^2 / 30 / \text{GT}$

The worst case (refer to report MTEB24090374-R) is below:

| Antenna polarization: Horizontal |                |              |
|----------------------------------|----------------|--------------|
| Frequency (MHz)                  | Level (dBuV/m) | Polarization |
| 2442                             | 77.77          | Peak         |
| 2442                             | 56.95          | Average      |

| Antenna polarization: Vertical |                |              |
|--------------------------------|----------------|--------------|
| Frequency (MHz)                | Level (dBuV/m) | Polarization |
| 2442                           | 76.57          | Peak         |
| 2442                           | 57.06          | Average      |

For 2442MHz wireless:

Field strength=77.77dBuV/m

Ant gain:1dBi;so Ant numeric gain=1.25

$$\text{EIRP} = \text{PT} * \text{GT} = (\text{E} \times \text{D})^2 / 30 = (10^{(\text{dB}\mu\text{V}/\text{m})/20} / 10^6 * 3)^2 / 30 = 0.0000182\text{W}$$

$$\text{So PT} = \text{EIRP} / \text{GT} = 0.0000182\text{W} / 1.25 * 1000 = 0.01456\text{mW}$$

$$\text{So } (0.01456\text{mW} / 5\text{mm}) * \sqrt{2.442\text{GHz}} = 0.00454$$

exclusion=0.00454<3.0 for 1-g SAR

So the SAR report is not required.